

The opinion in support of the decision being entered today was not written for publication and is not binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

***Ex parte*** KNUT KAHLISCH and HENNING MIETH

MAILED

APR 28 2005

U.S. PATENT AND TRADEMARK OFFICE  
BOARD OF PATENT APPEALS  
AND INTERFERENCES

Appeal No. 2005-0234  
Application No. 09/901,550

HEARD: April 19, 2005

Before HAIRSTON, GROSS, and BARRY, ***Administrative Patent Judges.***  
***GROSS, Administrative Patent Judge.***

***DECISION ON APPEAL***

This is a decision on appeal from the examiner's final rejection of claims 1 through 7 and 11. Claims 8 through 10 have been withdrawn from consideration.

Appellants' invention relates to a support matrix with a bonding channel for integrated semiconductors. The support matrix has along the edge of the bonding channel a barrier with a parting agent for repelling a flowable material. Claim 11 is illustrative of the claimed invention, and it reads as follows:

Appeal No. 2005-0234  
Application No. 09/901,550

11. A support matrix for integrated semiconductors, comprising:  
a frame having at least one bonding channel with an edge formed  
therein;  
conductor track structures disposed on said frame;  
contacts, selected from the group consisting of bonding leads and  
wires, connected to said conductor track structures and disposed  
in said bonding channel, said contacts used for connecting said  
conductor track structures to an integrated circuit; and  
a barrier formed along said edge, said barrier having a parting  
agent disposed thereon for repelling a flowable material from  
said bonding channel onto said frame and onto said conductor  
track structures.

The prior art references of record relied upon by the  
examiner in rejecting the appealed claims are:

Wiech, Jr. (Wiech)	4,562,092	Dec. 31, 1985
Roberts et al. (Roberts)	4,599,636	Jul. 08, 1986

Claims 1 through 3, 5 through 7, and 11 stand rejected under  
35 U.S.C. § 102(b) as being anticipated by Wiech.

Claim 4 stands rejected under 35 U.S.C. § 103 as being  
unpatentable by Wiech in view of Roberts.

Reference is made to the Examiner's Answer (Paper No. 18,  
mailed June 20, 2003) for the examiner's complete reasoning in  
support of the rejections, and to appellants' Brief (Paper No.  
17, filed April 16, 2003) and Reply Brief (Paper No. 19, filed  
August 22, 2003) for the appellants' arguments thereagainst.

**OPINION**

We have carefully considered the claims, the applied prior art references, and the respective positions articulated by appellants and the examiner. As a consequence of our review, we will reverse both the anticipation rejection of claims 1 through 3, 5 through 7, and 11 and also the obviousness rejection of claim 4.

"It is axiomatic that anticipation of a claim under § 102 can be found only if the prior art reference discloses every element of the claim." *In re King*, 801 F.2d 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1986). *See also Lindemann Maschinenfabrik GMBH v. American Hoist and Derrick*, 730 F.2d 1452, 1458, 221 USPQ 481, 485 (Fed. Cir. 1984). Each of independent claims 1, 6, and 11 includes a barrier (formed as a groove in claims 1 and 6) along the edge of the bonding channel and "a parting agent disposed thereon for repelling" a "flowable material" from the bonding channel onto the frame. Therefore, for Wiech to anticipate the claims, Wiech must disclose each of the above-noted elements.

The examiner contends (Answer, pages 3-4) that Wiech's groove 10 satisfies the claimed barrier and that Wiech's element

24 is a parting agent "disposed thereon for repelling the flowable material." The examiner suggests (Answer, page 11) that groove 10 is "capable of performing the intended use [of a barrier for flowable material]" and, therefore, meets the claimed barrier. Similarly, the examiner asserts (Answer, page 11) that element 24 is not structurally different from a parting agent, particularly because "Appellant [sic] never specifically defined in the specification of instant invention that what material is used for the parting agent, thus any material reads on as the parting agent."

Appellants have two convincing arguments. First, appellants argue (Brief, pages 8-9), and we agree, that the epoxy resin referenced by the examiner as being the claimed flowable material "in no way refers to preventing a lateral material flow along the support matrix surface." The claims recite that the barrier prevents a flow of "a flowable material from said bonding channel onto said frame and onto said conductor track structures." There is nothing in column 10, lines 42-46, of Wiech, the portion referenced by the examiner, that suggests that the epoxy resin encapsulating material a) flows b) from a bonding channel onto the frame and conductor tracks. Wiech instead indicates that the material is a) sprayed onto b) "[a]ll or part of the substrate,"

with no indication as to which parts. Thus, Wiech fails to disclose the recited preventing a flowable material from flowing from a bonding channel onto the frame and conductor tracks.

Second, appellants contend (Brief, page 8) that with regard to the claimed parting agent, "Wiech, Jr., explicitly teach[es] that reference sign 24 denotes a conductive material, namely a metal line formed in the groove. . . . [T]he conductive material 24 forms conductors rather than a parting agent." Appellants continue (Brief, page 8) that "Wiech, Jr. also does not suggest or provide any hint to use a groove filled with a parting agent for repelling a flowable material." We agree.

As stated by appellants, element 24 in Wiech is a conductor, with no teaching or suggestion that it repels a flowable material. Although the examiner states that element 24 "is capable of performing the intended use," the examiner supplies no evidence of such. In fact, the examiner states that any material would satisfy the limitation because appellants did not list particular materials in the specification. However, appellants have defined "parting agent" (specification, page 7) as a material which repels a flowable material, and appellants have recited in the claims that the parting agent must repel the flowable material. Therefore, for a material to satisfy the

claimed parting agent, the material must repel the recited flowable material. Wiech does not teach or suggest that the conductors 24 have any such characteristic. Further, as claimed, the material must prevent the flowable material from reaching the conductor tracks. However, conductors 24 are amongst the conductor tracks that are not to be covered with the flowable material, yet they would clearly be covered by the flowable material if grooves 10 were the barriers. Thus, Wiech clearly fails to teach or suggest each and every element of the claims, and we cannot sustain the anticipation rejection of claims 1 through 3, 5 through 7, and 11.

Regarding the obviousness rejection of claim 4, Roberts fails to cure the deficiencies of Wiech. Therefore, we cannot sustain the obviousness rejection of claim 4.

Appeal No. 2005-0234  
Application No. 09/901,550

## CONCLUSION

The decision of the examiner rejecting claims 1 through 3, 5 through 7, and 11 under 35 U.S.C. § 102(b) and claim 4 under 35 U.S.C. § 103 is reversed.

**REVERSED**

KENNETH W. HAIRSTON  
Administrative Patent Judge

ANITA PELLMAN GROSS  
Administrative Patent Judge

11. *W. E. H. Oldring*

BOARD OF PATENT  
APPEALS  
AND  
INTERFERENCES

~~LANCE LEONARD BARRY~~  
Administrative Patent Judge

APG/vsh

Appeal No. 2005-0234  
Application No. 09/901,550

LERNER AND GREENBERG, PA  
P O BOX 2480  
HOLLYWOOD, FL 33022-2480